

## ABSTRACT OF THE DISCLOSURE

A lithium cell has a positive electrode, a negative electrode having lithium, a separator interposed between the positive electrode and the negative electrode, and a non-aqueous electrolytic solution containing a solute and a non-aqueous solvent. The non-aqueous solvent has a main component of one or more than one compound represented by the following general formula (1):  $X - (O-C_2H_4)_n - O - Y$  (where X and Y are independently a methyl group or an ethyl group, and n is 2 or 3). The main component is 90 to 100% in volume of the non-aqueous solvent. The separator has a melting point of higher than 150°C. The lithium cell with the above construction does not impair heat resistant safety and electrochemical characteristics such as discharging characteristics even in severe environments of high temperature, and enhances its long period reliability.